Aminopyralid Rationale

Most information was gathered through FS Risk Assessments, EPA Pesticide Fact Sheets, labels, MSDS, personal conversations and scientific journal articles. With it being a fairly new chemical, there aren't many published papers but there are more all the time. The internet is however, filled with unpublished data from many reputable sources.

Aminopyralid has become the herbicide of choice for many invasive plants in the Pacific Northwest. It has been found to perform as well as the other auxin mimicking pyridinecarboxylic acid herbicides such as clopyralid and picloram for many invasive plants. Picloram and clopyralid are two of the most widely used herbicides to control invasive plants in the Asteracea and Fabaceae families. Both chemicals however, are well known to pose greater environmental risks than those of Aminopyralid. It has an extremely low use rate, which reduces pounds of active ingredient applied to the land, reduces risk of chemical runoff/leaching, and reduces applicator health risk.

A review of the MSDS for the end-product Milestone™, findsaminopyralid to pose a lower risk to human, fish, and wildlife health than Transline ™ (clopyralid) or Tordon 22k™ (picloram). It does not contain inert ingredients, and is not contaminated with hexachlorobenzene, a known human carcinogen. Both picloram and to a lesser extent clopyralid contain HCB, replacing these chemicals with aminopyralid will reduce human health risk. Picloram is a moderately toxic herbicide to aquatic organisms including fish, replacing picloram with aminopyralid reduces the risk.Aminopyralid does not appear to present any greater or lower risk to aquatic organisms than clopyralid and will generally be used in the same areas.

Although a very low KOC value (0-50) makes it highly mobile in permeable soil, it hasn't been found to leach as severely as clopyralid or picloram, remaining mostly in the upper 12 inches of the soil (Bekir 2010). The product is labeled for use "to the waters edge", unlike Tordon 22k™ or Transline™.Picloram is considered highly persistent in the soil and toxic to non-target plants, Clopyralid is also persistent, but less so than picloram. Aminopyralid poses a lower risk than picloram and slightly lower risk than clopyralid for non-target plant damage, due to less persistent and soil mobility. The mobility of aminopyralid is still its greatest environmental risk, due to the potential for non-target damage.

Milestone is a broadleaf selective product than can be used to restore perennial grasslands. It should be safer on most grasses than picloram, but less safe than clopyralid. At high rates, aminopyralid has been found to control invasive annual grasses like medusahead and cheatgrass, clopyralid does not control these species even at high rates. While there is a hay and manure restriction for aminopyralid, this should not affect the invasive plant control program of the forest, and similar issues are present with clopyralid and picloram already. Milestone has also been found to be persistent in water than does not receive sunlight, for this reason there is a 200 ft. setback from wells, in water that does receive sunlight, the chemical breaks down faster than picloram and much faster than clopyralid.